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Enhancing Estimates for Migrants in the Labour Force Survey

How estimates of labour force status by country of birth have been improved with data from ABS' Estimated Resident Population

Released 25/09/2025

Source: [Labour Force, Australia, Detailed, August 2025](#)

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As part of ongoing improvements to the estimation methodology for Labour Force statistics, the ABS has introduced minor changes to how it accounts for country of birth, commencing with this month's release.

People born overseas represent a significant portion of the Australian population: [in 2024 \(/media-centre/media-releases/9-facts-about-australias-overseas-born-population\)](#) they represented 31.5 per cent of Australia's estimated resident population (ERP). While the monthly Labour Force Survey (LFS) asks respondents questions about their country of birth and year of arrival in Australia, these responses are not used when reporting LFS headline estimates. As a sample survey, there is a degree of underlying sampling variability and other measurement errors when using the country of birth data item in the LFS.

Improving how the contribution of people born overseas is estimated allows for a more accurate measure of how they participate in the Australian labour force. This can be done without changing the overall aggregate estimates through the use of reliable auxiliary data sources.

This change impacts LFS estimates by country of birth, published monthly in [Labour Force Australia, Detailed \(/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release\)](#) in datacubes LM4 and LM5.

Making greater use of auxiliary data sources

The use of auxiliary data sources in LFS statistics coincides with an increasing shift towards multi-source and mixed-method approaches within ABS statistics and those of other national statistical organisations, consistent with the breadth of data and methods which are now available.

The improved estimation model for LFS statistics by country of birth draws on [Australia's Population by Country of Birth \(/statistics/people/population/australias-population-country-birth/latest-release\)](#), which provides annual

statistics on Australia's ERP by age, sex, year and country of birth. The ERP is based on adjusted Census counts, updated with quarterly estimates of births, deaths, overseas and interstate migration. State and territory level information is available for Census years. More information on the derivation of Australia's ERP by country of birth can be found in the publication's [Methodology \(/methodologies/australias-population-country-birth-methodology/jun-2024\)](#) page.

Modelling method

The [Characteristics of Recent Migrants Survey \(/statistics/people/people-and-communities/characteristics-recent-migrants/nov-2019\)](#) (CORMS), released periodically from 1993 to 2019, provided employment data for migrants who arrived in Australia within 10 years of the reference year.

The 2019 CORMS publication incorporated ERP statistics from the now discontinued [Migration, Australia \(/statistics/people/population/migration-australia/latest-release\)](#) series. Population estimates were generated by adjusting LFS country of birth totals by the proportions of each country of birth category in ERP, preserving the LFS population totals.

The method developed to adjust datacubes LM4 and LM5, from this month's release onwards, expands upon the method used for the 2019 iteration of CORMS. Proportions of ERP by country of birth are used to adjust weighted LFS estimates for the in-scope civilian population of the two datacubes.

To preserve monthly variations in the existing LFS data, a pro-rata temporal disaggregation method is used to apply annual proportions of ERP by country of birth to the monthly LFS estimates. The use of proportions means the LFS datacubes cohere with other estimates of migrant populations (such as ERP) and maintain consistency with the other LFS estimates.

The ERP series is extrapolated using observed growth rates in the LFS series to overcome the publication lag between the annual ERP publication and the monthly LFS releases.

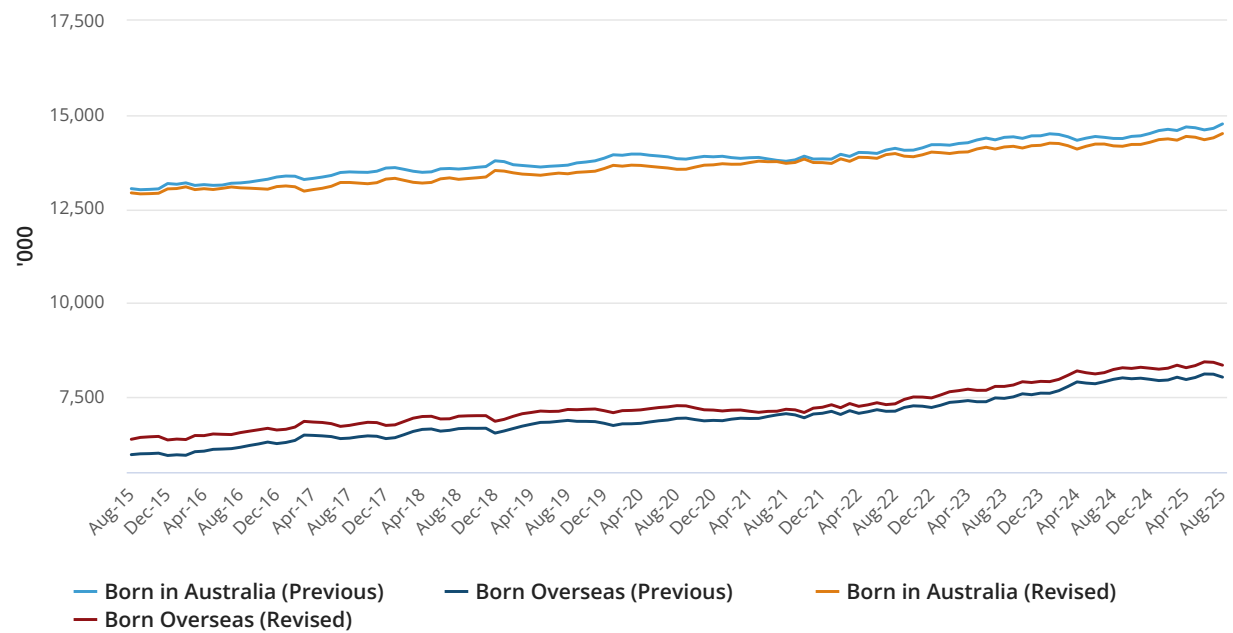
Where information is missing from the annual ERP series, but is present in the LFS datacubes, such as information on state and territory populations and elapsed years since arrival, the original LFS proportions have been preserved in the revised outputs. Analysis by ABS has found that, while the proportion of the population that is born overseas varies considerably across states and territories, estimates by country of birth within each state and territory show relatively small differences between ERP and LFS.

Impact on estimates

By drawing on more representative and stable auxiliary data, the enhanced estimation method produces more reliable level estimates for the sample population without impacting the overall headline estimates.

By using proportions for country of birth, the new method preserves the benchmarked civilian population totals of Australia and does not have any impact on the headline LFS level estimates. The population changes made by the revised method are relatively small, as illustrated in Chart 1. The largest revision for the overseas born population resulted in an increase of 446,000 people in October 2015, representing 2.3 per cent of the month's total civilian population. The largest revision to the Australian born population was in March 2017, which was reduced by 308,000 people or 1.6 per cent of the total civilian population at the time.

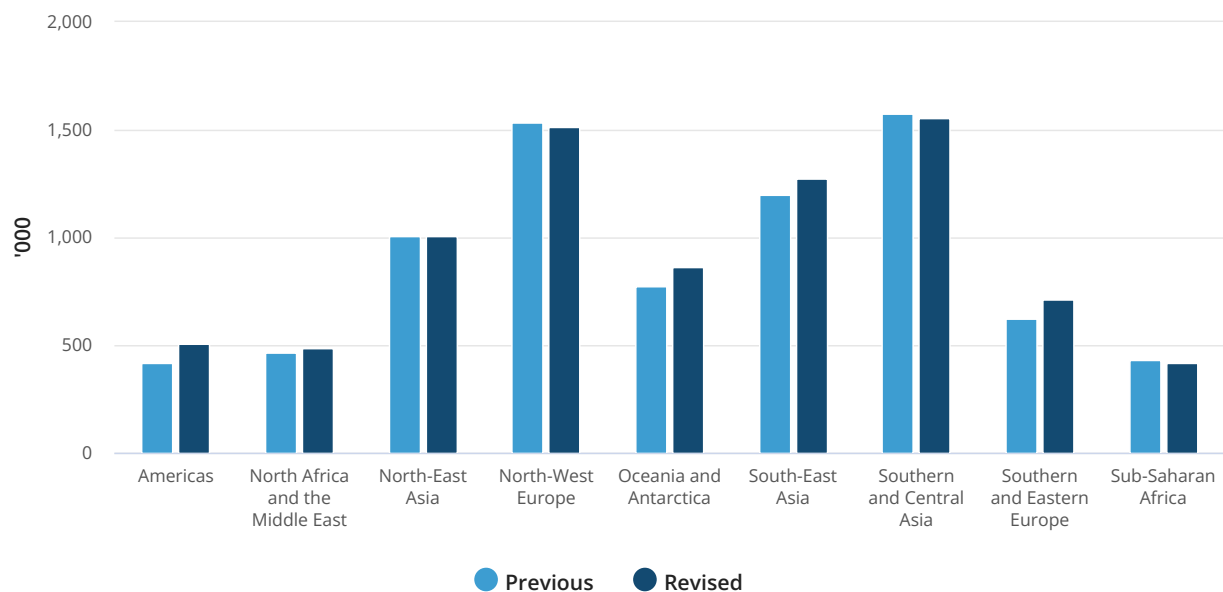
Chart 1: Civilian population totals by location of birth, before and after method update



Source: Labour Force, Australia, Detailed Datacube LM5

While the overall changes introduced by this method have resulted in a larger estimate of people born overseas, Chart 2 uses data from LM5 to show that the new method does not increase the size of all country of birth groupings. Estimates for some groups have been reduced by the introduction of this method. For August 2025, the largest increase is to the Oceania and Antarctica continental group (+90,700 people) and the largest decrease is to people born in Sub-Saharan Africa (-17,200 people).

Chart 2: Population estimates by Major Country Group, before and after method update, August 2025

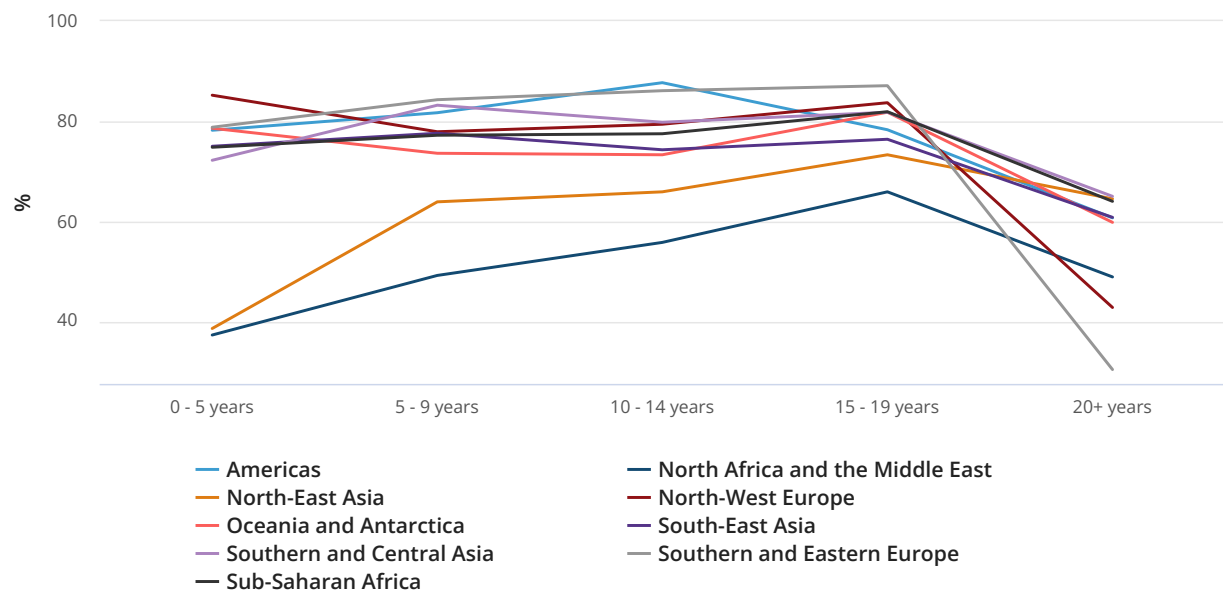


Source: Labour Force, Australia, Detailed Datacube LM5

The revised datacubes allow for a more accurate study of the labour force status of the Australian civilian population by country of birth. LM4 contains information on labour force status by elapsed years since arrival, Major Country Group (subcontinent) of birth, sex, state and territory; while LM5 shows labour force status by age, Major Country Group (subcontinent) of birth, and sex.

The data in these datacubes show that labour force participation differs by country of birth. Labour force participation depends on a variety of factors such as age, sex or country of birth. This is highlighted in Chart 3, which shows the employment to population ratio of persons born overseas by elapsed years since arrival.

Chart 3: Employment to Population Ratio, by Major Country Group and Elapsed Years since Arrival, August 2025



Source: Labour Force, Australia, Detailed Datacube LM4

Because the ERP by country of birth data is available from 1996, the updated LM4 and LM5 datacubes will include data from July 1996 onwards, instead of the January 1991 start date available previously. There are no other changes to the structure or format of the updated datacubes from what was previously released.

Ongoing review and exploration of improvements

The ABS will monitor the performance of this new method as part of its regular quality assurance processes for LFS statistics.

As part of its regular annual review program, the ABS will also explore other potential auxiliary data sources and methods, similar to the way the ABS conducts periodic reviews of its seasonal adjustment and time series methods.

If you would like to provide feedback or have any questions, please email labour.statistics@abs.gov.au (<mailto:labour.statistics@abs.gov.au>).